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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/670,825 | 09/25/2003 | Maximino Aguilar JR. | AUS920030704US1 | 7315 |

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IBM CORP. (WIP)
c/o WALDER INTELLECTUAL PROPERTY LAW, P.C.
P.O. BOX 832745
RICHARDSON, TX 75083

| EXAMINER | |
|---|---|
| PARTHASARATHY, PRAMILA | |
| ART UNIT | PAPER NUMBER |
| 2136 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 04/10/2008 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/670,825 | AGUILAR ET AL. | |
| | Examiner | Art Unit | |
| | PRAMILA PARTHASARATHY | 2136 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *30 January 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) *10,20,28 and 30* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,11-19,21-27,29 and 31-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/07; 1/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Information Disclosure Statement*

Two initialed copies of the information disclosure statement are attached to this office action.

### *Response to Arguments*

Applicant's arguments with respect to "Finality of the office action" (mailed 10/30/2007) have been fully considered and are persuasive. Therefore, the finality of the previous office action has been withdrawn.

Applicant's arguments with respect to the rejection(s) of claim(s) 1-9, 11-19, 21-27, 29 and 31-37 under 35 USC 101 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

Applicant's argument with respect to double patenting is not persuasive. Examiner maintains the rejection and provides additional details.

Claims 1-9, 11-19, 21-27, 29 and 31-37 are provisionally rejected under judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of Patent No. 6,981,072. Although the conflicting claims are not identical, taking Claim 31 as an exemplary, Examiner respectfully submits that "a control processor, selecting at least one controlled processor ... selecting a second controlled processor ...", regardless of the wording, still maps to "a general-purpose processor; a special purpose processor", regardless of the designation, the special purpose processor, it is still a processor and selection of the processor to perform certain function under certain condition in the instant claim correspond to special purpose processor; perhaps the only difficult difference that makes use of the alleged invention is "shared operational state" and "isolated operational state" vs. "a direct memory access

controller (DMAC) coupled to the special-purpose processor ... a second MMU coupled to the DMAC". Therefore, the patent describes specifically how the general and special purpose processors are used and broad limitations in the instant application claims describe selection of control processors. However both claim to configure a multiprocessor system to couple the controlled processor in shared (general purpose processor) or isolated (special purpose processor) operational state. Applicant is advised to file a Terminal Disclaimer to over come double patenting rejection.

Applicant's arguments with respect to 35 USC 112, First paragraph is not persuasive. Examiner maintains and provides additional details (See below).
Applicant argues "the present specification provides support for a control processor, such as PU 203, and a plurality of controlled processors, such as SPUs 203 and 207-221". Examiner agrees that "PU 203 can be, e.g., a standard processor capable of stand-alone processing of data and applications. In operation, PU 203 schedules and orchestrates the processing of data and applications by the SPUs. The SPUs preferably are single instruction, multiple data (SIMD) processors" has been disclosed in paragraph [0075]. However, Examiner disagrees that the claimed limitation under rejection, corresponds to the "synergic processing unit (SPU) processors". Applicant discloses the structure of PU and SPU [See paragraphs 0072 – 0080] but claims a general purpose processor and a controlled processor. Examiner suggests clarifying second controlled processors by amending "a plurality of controlled processors" with "a plurality of the synergistic processing units".

Applicant's arguments with respect to 35 USC 112, Second paragraph is persuasive. Therefore, the rejection has been withdrawn.

***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 – 9, 11 – 19, 21 – 27, 29 and 31 – 37are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 – 24 of U.S. Patent No. 6,981,072. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant case, all elements of claims correspond to the claims of the patent claims, except in the instant claims the elements "a control processor and a plurality of controlled processor from the plurality of controlled processors to operate in a shared operational state; selecting a second controlled processor from the plurality of controlled processors to operate in an isolated operational state" is referred in the patent claims as "a general-purpose processor; a special-purpose processor; … wherein the general-purpose processor is a processing unit". Patent claims recite "wherein the special-purpose processor is a synergistic processing unit (SPU), wherein the SPU communicates with the system memory only through the DMAC and the second MMU" which encompasses the instant application

claims "reading, at the second controlled processor, one or more special nonvolatile registers, the special nonvolatile registers including one or more special nonvolatile registers … wherein the reading and writing steps are performed using Direct Memory Access (DMA) operations". Thus patent claims anticipate the instant claims.

Claims of the instant application are anticipated by patent claims in that the patent claims contains all the limitations of the instant application. Claims of the instant application therefore is not patentably distinct from the earlier patent claims and as such are unpatentable for obvious-type double patenting *(In re Goodman (CAFC) 29 USPQ2d 2010 (12/3/1993).*

## ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 – 9, 11 – 19, 21 – 27, 29 and 31 – 37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims recite, "controlled processors" which are not defined in the instant specification.

## *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pramila Parthasarathy whose telephone number is 571-272-3866. The examiner can normally be reached on 8:00a.m. To 5:00p.m.. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami can be reached on 571-232-4195. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR only. For more information about the PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Pramila Parthasarathy/
Examiner, Art Unit 2136
February 14, 2008